## U.S. AMLR Program and National Science Foundation

# 2011-2012 Weekly Field Reports Copacabana, King George Island

Volume 11 December 26, 2011

### **Science Report:**

1. **Penguins:** 65% of our Adélie and 1% or our gentoo penguin study nests that are currently active have crèched chicks. 76% of the Adélie and 90% of the gentoo penguin nests we started following at the beginning of the season are still active.

We conducted another Adélie penguin diet sample on Tuesday (12/27). The krill (*Euphausia superba*) continued to consist of unusually large proportions of juvenile krill; two of the five samples were 48% juveniles and one was 44% juveniles. The adult krill sizes ranged from 36-53 mm and approximately 58% were males.

The first round of satellite transmitters (PTTs) were deployed on Adélie penguins this week. These transmitters are utilized to determine the foraging locations of the penguins at sea. We select an even ratio of males to females with two chicks for deployment. The PTTs remain on the penguins for 7-10 days and then are retrieved and prepared for a second round of deployments on new birds. The data are downloaded back in California, where they will be mapped & compared to previous years. Also, combined with the diets data we collect at the same time, we can get an idea of the location & distribution of the prey they are feeding on.

Our first Adélie penguin chick with known-age parents was banded with a permanent stainless steel flipper band. These chicks are monitored separately from the main population, due to their knownage parents, so we can determine if the age of the parents has any effect on their survival.

Five more GLS tags were attached to breeding Adélie penguins in one of our study sites on Tuesday (12/27) and Wednesday (12/28).

On Saturday (12/31), we saw our second king penguin of the season at Point Thomas, and a banded chinstrap penguin from our sister program at Cape Shirreff, Livingston Island.

- 2. Skuas: This week the skuas recouped some of the losses from early storms thanks to some late breeders. Currently, 34% of our 161 active territories have nests with eggs and 23% have hatched chicks.
- **3. Giant Petrels:** We began re-sighting giant petrel bands and confirming nest contents at Copa this week.

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4. Seals & Whales: On Thursday (12/26), the census from Copa to Patelnia resulted in 681 elephant seals (12 males, 4 weaners, 665 juvenile/unknowns) and 2 Weddell seals. Our Copa to Pt. Thomas census found 19 elephant seals (19 juvenile/unknowns) and 1 crabeater seal.

Two leopard seal attacks were observed this week at Copa. The first was on Wednesday (12/28) and the prey species was a banded Adélie penguin from last year. The second was on Saturday (12/31) and the prey species was a gentoo penguin.

Humpback whale activity continued this week with several sightings of 2-4 whales at a time entering and exiting the bay.

### Weekly Weather

This week we had a stretch of calm, wet weather with highs from 34-37°F and intermittent rain or snow every day until Friday (12/30), when the wind switched to the west & increased, with sustained 30 mph winds at Copa. On Saturday, the wind and rain subsided and it was calm and sunny all day.

#### Other News:

New Year's Eve was spent with our Brazilian friends at Ferraz Station.

The 2011-12 Copa Field Team Penny Chilton, Field Team Leader Brette Soucie Matt Henschen

